

Bug-Proof Lesson Plan

YOUR NAME:	James Maloney-Hawkins
Pick a lesson from your unit in Dr. Grace's class. Write a short summary of that lesson plan. Be sure to describe what technology you plan for your students (and you) to use:	Lesson three of my unit is about atomic structure and atomic models. It's the first stepping stone for the students to conceptualize what it means to take a chemistry class. We first talk about subatomic particles, and then discuss the progression through history of the atomic model. Students will have the opportunity to utilize multiple forms of technology like smart boards and laptops/computers. They will also utilize numerous programs varying from a basic word document to potentially glogster to Google Sketchup.
<i>GNAT</i>	
Look at the class list of possible problems and pick one (or make up your own) that is something that is a temporary problem/issue that could happen to your equipment (the teacher's computer) that would affect your plan. The technology might get fixed before your lesson is over, but might not. What "bug" did you pick:	Google Sketchup could require a newer form of flash or different video processing software to be downloaded when the programs are utilized in class.
What could you do that would allow the learning to continue without the technology or in a modified way?	Students could update their programs in class while I discuss a new topic part of the lesson about atomic models. Students could also work on a worksheet I had given to them previously to outline their final project, using online tools or in class resources.
What do you need to do ahead of time so that plan could be carried out? (Do you need handouts? Other materials? ...)	The lesson allows for student work time in class, that was focused primarily on the students development of their model with their sketchup, but if I was to allow them time to work on their written portion it could be switched out pretty easily.
<i>BLACK FLY</i>	

Look at the class list of possible problems and pick one (or make up your own) that is something that is an all-day problem/issue that could happen to you or your students' equipment that would affect your plan. What "bug" did you pick:	During a class work session a student's laptop runs out of battery and they are unable to access their file while other students are working on their models.
What could you do that would allow the learning to continue without the technology or in a modified way?	The student doesn't need Sketchup to Complete their entire project. Yes, the software and conceptual knowledge is a part of the process, but students could work on other aspects of the project during class. These work sessions are placed so that if a student runs into a problem like this in class the student can notify me and if necessary we can extend their project date, or figure out another way of working on the content.
What do you need to do ahead of time so that plan could be carried out? (Do you need handouts? Other materials? ...)	I need to have some in class resources available so the student can research their topic without their laptop. Periodic tables, books and interactive Chemistry tools could be useful to have on hand in case this happens as well as for other lessons to supplement instruction.
<i>DEADLY ASIAN HORNET</i>	
Look at the class list of possible problems and pick one (or make up your own) that is something that is a multi-day problem/issue that could happen to you and your students' equipment that would affect your plan. What "bug" did you pick:	Google Sketchup no longer offers free program software, after the students have developed their models, or started their project. Their content is no longer accessible.
What could you do that would allow the learning to continue without the technology or in a modified way?	Every Chemistry class has physical atomic models (plastic tinker toys, balls connectors). The students could create their model of their element either with the toy models or draw them, taking a photo of their final product and uploading it to the correct location.

What do you need to do ahead of time so that plan could be carried out? (Do you need handouts? Other materials? ...)

I would need to have the models ready, maybe even more than just one set as well. The students who aren't making a model physically could also be drawing it on paper or using a supplemental program on their laptop to complete the same concept. They will miss out on experiencing 3d spacing of atomic models and their element, but the knowledge could still be instilled.